

PHARMACEUTICAL INTERVENTIONS IN PARENTERAL NUTRITION FOR CRITICALLY ILL PATIENTS

M Gonzalez-Padilla, A Jurado-Romero, M Valera-Rubio, JL Ortiz Latorre*, I Moya-Carmona.
Hospital Universitario Virgen De La Victoria, Servicio De Farmacia, Málaga, Spain.

Background and importance

The integration of the pharmacist into the intensive care unit (ICU) is very useful to prevent malnutrition and to reduce mortality among these patients, as the pharmacist can advise the prescriber on how to choose the most appropriate parenteral nutrition (PN).

Aim and objectives

To describe and analyse pharmaceutical interventions (PIs) carried out for medical prescriptions of PN in patients admitted to the ICU.

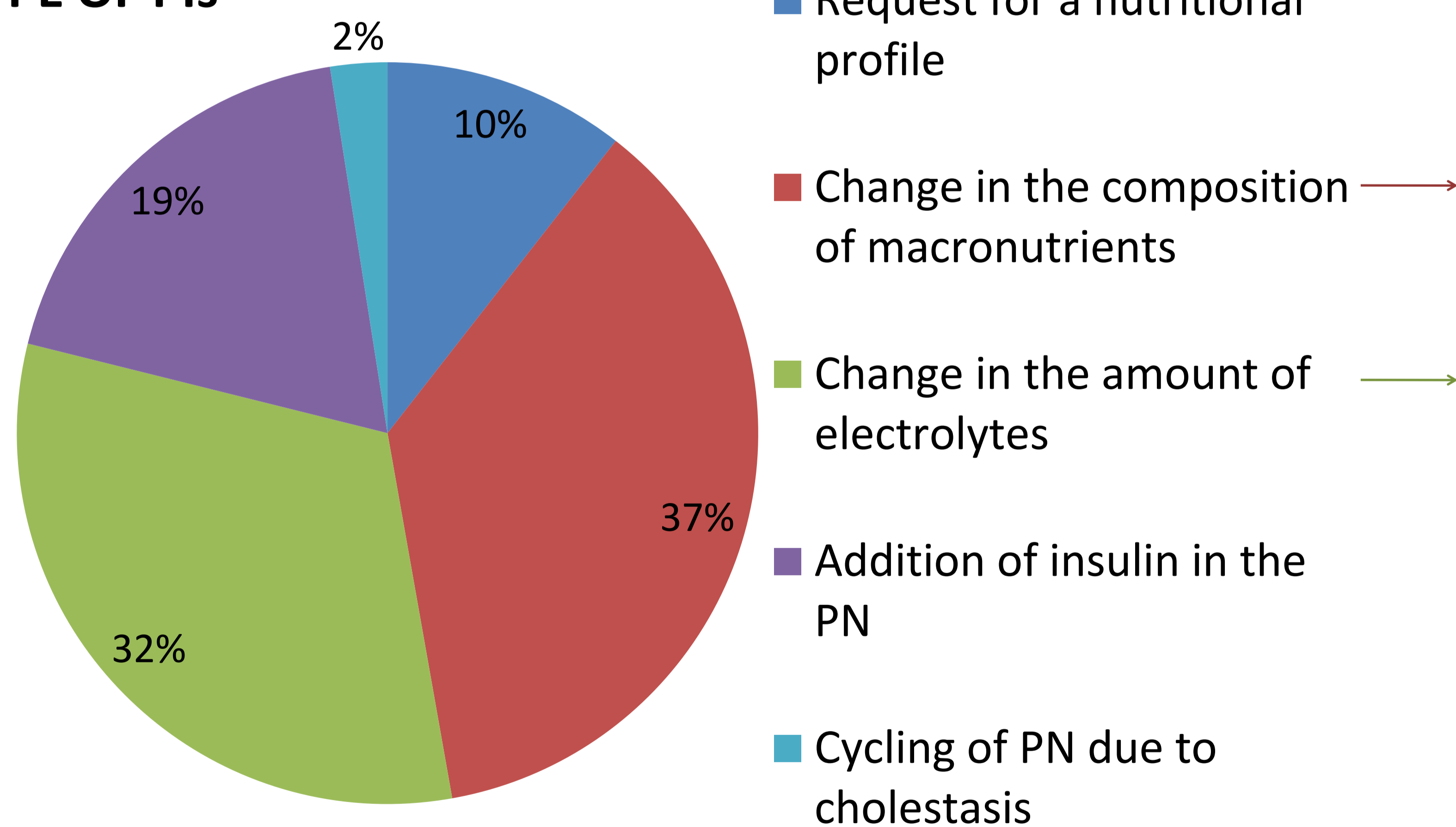
Results

54 patients were registered (71% men, average age 65 years). The average duration of PN was 11 days. A total of **176 interventions** were recorded (3.3 PIs/patient), **91.5%** during **follow-up** and **8.5%** after **finishing PN**. Distribution of PIs according to diagnosis were: polyvalent critical patients (48.1%); postoperative complications (29.6%); colorectal surgery (9.2%); upper gastrointestinal tract surgery (5.7%); pancreatitis (3.7%); and liver diseases (3.7%).

Material and methods

A prospective study (June–September 2019) was carried out. Variables included demographics, duration of PN, indication for PN, type of PI and degree of acceptance. The data were obtained from medical and pharmaceutical nutrition records.

TYPE OF PIs



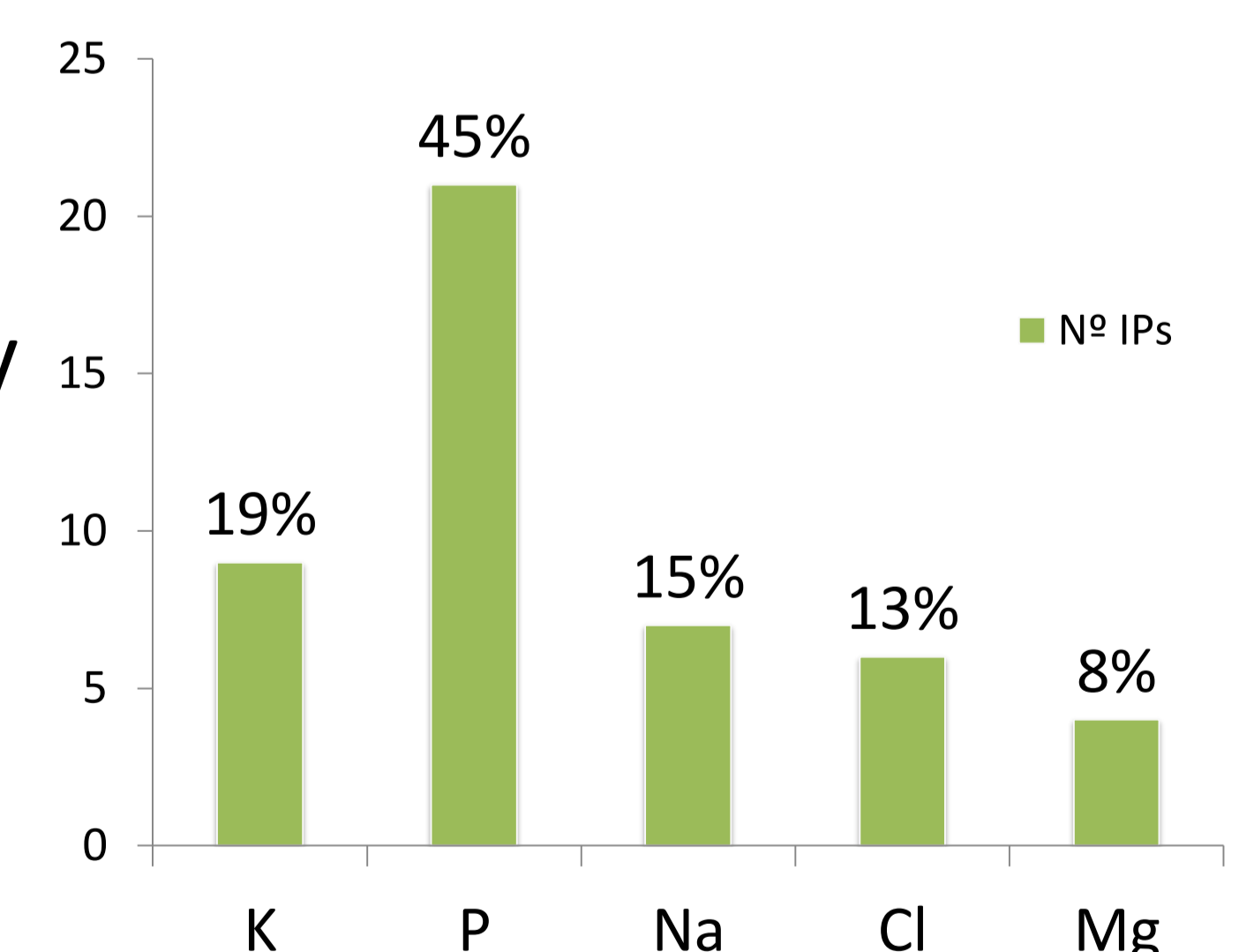
61% related to **proteins** (78%—increase in order to cover the nitrogen requirements).

23.7% related to **lipids** (71%—restriction due to triglycerides >400).

15.3% related with **carbohydrates** (100%—decrease in the supply due to high levels of glycaemia).

Related to a change in the amount of electrolytes:

53% extra-supply
47% restriction



Most of the PIs (88.7%) were accepted by physicians.

Conclusion and relevance

The majority of interventions were due to changes in the composition of macronutrients and micronutrients of the PN, adjusting to the constant changes in the needs of critically ill patients. The high number of PIs per patient and the high degree of acceptance by physicians highlight the significant role of the hospital pharmacist in the nutritional control of critically ill patients.

